KUNZLER AND ASSOCIATH PATENT, TRABEMARK, AND COPYRIGHT LA 10 WEST 100 SOUTH, SUITE 425 SALT LAKE CITY, UTAH 84101

The controller 210 communicates with a notification module 312. The notification module 312 notifies a user whether or not the item 502 is properly associated with the coded identifier 104. In one embodiment, the notification module 312 notifies the user by sending a signal to an output device. The output device may comprise a green light that is activated when the coded identifier 104 is positively associated with the item 102. Additionally, when the coded identifier 104 is not positively associated with the item 102, a red light may be activated. Of course, the output device may also comprise a bell, a text message, a tone, or any other suitable indicator. In this manner, the system 500 facilitates positively identifying an item 502 by associating a coded identifier 104 and a visual characteristic of an item 502 with a coded identifier and visual characteristic of a candidate item within a database 114. Processing of items may be conducted more quickly with the present invention and may be done without the constant attention of an attendant. Fraud may be effectively thwarted, allowing transactions such as product check-out to be more streamlined and secure.

The present invention may be embodied in other specific forms without departing from its spirit or essential characteristics. The described embodiments are to be considered in all respects only as illustrative and not restrictive. The scope of the invention is, therefore, indicated by the appended claims rather than by the foregoing description. All changes which come within the meaning and range of equivalency of the claims are to be embraced within their scope.

What is claimed is:

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

The apparatus of claim 1, further comprising a weight module configured to identify and 7. associate the weight of the item with the weight of the candidate item.

The apparatus of claim 1, further comprising a notification module configured to notify

The apparatus of claim 1, wherein the database is configured to associate the visual

a user whether the coded identifier is associated with the candidate item.

characteristic with the candidate item and the coded identifier.

| 9. A user interface for positively identifying an item, the user interface comprising: |
|---|
| an input module configured to read a coded identifier associated with the item and to |
| capture a visual characteristic associated with the item; |
| a controller in communication with the input module, the controller configured to |
| receive the coded identifier and the visual characteristic from the input |
| module, associate the visual characteristic with a candidate item in a |
| database, and verify that the candidate item is associated with the coded |
| identifier; and |
| a confirmation module in communication with the controller, the confirmation |
| module configured to confirm that the candidate item is associated with the |
| item. |
| |
| 10. The user interface of claim 9, further comprising a presentation module configured to |
| present to a user a plurality of candidate items associated with the visual characteristic of the |
| item and allow the user to identify from the plurality of candidate items a candidate item |
| corresponding to the item. |
| |
| 11. The user interface of claim 9, further comprising a notification module configured to |
| notify a user whether the candidate item is associated with the coded identifier of the item. |
| |
| 12. The user interface of claim 9, wherein the input module identifies and associates the |
| weight of the item with the weight of the candidate item. |

consisting of color, size, shape, or texture.

The apparatus of claim 1, wherein the visual characteristic is selected from the group

| 11 |
|----|
| 12 |
| 13 |
| 14 |
| 15 |
| 16 |
| 17 |
| 18 |
| 19 |
| 20 |
| 21 |
| 22 |
| 23 |
| 24 |
| 25 |
| 26 |

| 13. | A system for positively identifying an item, the system comprising: |
|-------|---|
| | a checkout station comprising a reader configured to read a coded identifier of the |
| | item and a capture module configured to capture a visual characteristic of the |
| | item; and |
| | a server in communication with the checkout station, the server comprising an |
| | association module configured to associate the visual characteristic with a |
| | candidate item in a database, and a verification module configured to verify |
| | that the candidate item is associated with the coded identifier. |
| | |
| 14. | The system of claim 13, wherein the server is remote in relation to the checkout station. |
| | |
| 15. | The system of claim 13, wherein the server communicates with a plurality of checkout |
| stati | ons. |
| | |
| 16. | A method for positively identifying an item, the method comprising: |
| | reading a coded identifier associated with the item; |
| | capturing a visual characteristic of the item; |
| | associating the visual characteristic with a candidate item in a database; and |
| | verifying that the candidate item is associated with the coded identifier |

- 17. The method of claim 16, further comprising confirming with a user that the candidate item is associated with the item.
- 18. The method of claim 16, further comprising presenting to a user a plurality of candidate items associated with the visual characteristic of the item and allowing the user to identify from the plurality of candidate items a candidate item corresponding with the item.

| ì | 19. The method of claim 16, further comprising notifying a user whether the coded |
|----|---|
| 2 | identifier is associated with the candidate item. |
| 3 | |
| 4 | 20. The method of claim 16, wherein the database is configured to associate the visual |
| 5 | characteristic with the candidate item and the coded identifier. |
| 6 | |
| 7 | 21. The method of claim 16, further comprising generating a visual signature from the |
| 8 | visual characteristic. |
| 9 | |
| 10 | 22. The method of claim 16, further comprising identifying and associating the weight of |
| 11 | the item with the weight of the candidate item. |
| 12 | |
| 13 | 23. The method of claim 16, wherein the visual characteristic is selected from the group |
| 14 | consisting of color, size, shape, or texture. |
| 15 | |
| 16 | 24. An apparatus for positively identifying an item, the apparatus comprising: |
| 17 | means for reading a coded identifier associated with the item; |
| 18 | means for capturing a visual characteristic of the item; |
| 19 | means for associating the visual characteristic with a candidate item in a database; |
| 20 | and |
| 21 | means for verifying that the candidate item is associated with the coded identifier. |
| 22 | |
| 23 | 25. The apparatus of claim 24, further comprising means for confirming with a user that the |
| 24 | candidate item is associated with the item. |
| 25 | |
| 26 | 26. The apparatus of claim 24, further comprising means for notifying a user whether the |
| 27 | coded identifier is associated with the candidate item |

-22-

П

| 27. | An | article | of | manufacture | comprisi | ng a | program | storage | medium | readable | by a |
|------|-------|----------|------|----------------|-----------|-------|------------|----------|-----------|------------|-------|
| proc | esso | r and e | nbc | dying one or | more inst | ructi | ons execu | table by | a process | or to perf | orm a |
| metl | hod f | for posi | tive | ly identifying | an item. | he n | nethod cor | nprising | • | | |

| reading a coded identifier associated with an item; |
|--|
| capturing a visual characteristic of the item; |
| associating the visual characteristic with a candidate item in a database; and |
| verifying that the candidate item is associated with the coded identifier. |

28. The article of manufacture of claim 27, wherein the method further comprises confirming with a user that the candidate item is associated with the item.

29. The article of manufacture of claim 27, wherein the method further comprises presenting to a user a plurality of candidate items associated with the visual characteristic of the item and allowing the user to identify from the plurality of candidate items a candidate item corresponding with the item.

30. The article of manufacture of claim 27, wherein the method further comprises notifying a user whether the coded identifier is associated with the candidate item.